

CORONASYS INNOVATION SHEET 43

PROJECT HAZEL

Background

Mask wearing (if done right) belongs to the prevention approaches that are scientifically proven to be effective¹². But some people claim that the masks make them uncomfortable and that they have difficulty speaking and breathing. The computer and gaming hardware manufacturer Razer³ has now developed a mask that aims at solving these issues.

Features

The mask developed under the catchy name Project Hazel⁴ uses an N95 medical-grade respirator as well as detachable and rechargeable ventilators and air flow regulators. The ventilators can be disinfected and recharged by using a UV-sanitization device that comes with the mask. Inbuilt microphones amplify muffled speech. The mask is transparent so that the face is visible and lip-reading possible. Also, it is made of recyclable plastics⁵.

Potentials

The reusable mask might be an addition to existing community masks, especially for those who appreciate an added aesthetic value. The company also has distributed free face masks earlier in the pandemic and converted one of its production sites for mask production⁶.

Points to consider

At the moment, the mask is still in development and not for sale. Moreover, it is to be expected that such a technologically and aesthetically sophisticated design will not come all too cheap.

Conclusion

The masks might be a nice addition for fashionable mask users who also appreciate environmental friendliness and sustainability. But they are certainly not a game changer in the fight against the pandemic.

State of information: 01/13/2021

Launch: not yet determined

Country: USA, Singapore

Focus area: Prevention

Developers: Razer

Beneficiaries: General population

¹ Chu, Derek K., Elie A. Akl, Stephanie Duda, Karla Solo, Sally Yaacoub, Holger J. Schünemann, and COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. “Physical Distancing, Face Masks, and Eye Protection to Prevent Person-to-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-Analysis.” *Lancet* (London, England) 395, no. 10242 (June 27, 2020): 1973–87. [https://doi.org/10.1016/S0140-6736\(20\)31142-9](https://doi.org/10.1016/S0140-6736(20)31142-9).

² Matuschek, Christiane, Friedrich Moll, Heiner Fangerau, Johannes C. Fischer, Kurt Zänker, Martijn van Griensven, Marion Schneider, et al. “Face Masks: Benefits and Risks during the COVID-19 Crisis.” *European Journal of Medical Research* 25, no. 1 (August 12, 2020): 32. <https://doi.org/10.1186/s40001-020-00430-5>.

³ Razer. “Razer United States | For Gamers. By Gamers.,” 2021. <https://www.razer.com>.

⁴ Razer. “The World’s Smartest Mask - Project Hazel,” 2021. <https://www.razer.com/concepts/razer-project-hazel>.

⁵ Guy, Jack. “Razer’s Reusable Face Mask Ventilates the Air and Amplifies Your Voice - CNN.” *CNN*, January 13, 2021. <https://edition.cnn.com/2021/01/13/americas/razer-smart-face-mask-scli-intl-wellness/index.html>.

⁶ Toh, Michelle. “Razer Singapore: Vending Machines to Provide Millions of Free Face Masks to Residents - CNN,” May 12, 2020. <https://edition.cnn.com/2020/05/12/tech/razer-singapore-masks-intl-hnk-scli/index.html>.

Background on Innovation Sheet Series

As part of a real-time evaluation of the SARS CoV 2 pandemic (with focus on epidemiological, medical, economical, societal, technical, and cultural developments in Germany and Armenia) the CoronaSys research team, under the leadership of Prof. Dr. Martin Voss, is conducting a continuous monitoring of developments and medical, technical, and social innovations concerning Covid-19.

Multiple national and international media outlets, research platforms, and scientific and organizational guidelines, briefs, and updates are screened to feed into this outlet. The rationale behind this is to support the projects' network partners in Armenia and Germany with short summaries of key developments and promising innovations that are shaping the global, German, and Armenian outbreak response and recovery.

The aim of these short briefs is to give condensed and structured information on selected innovations emerging out of the conducted horizon scanning. This could be mainstream big-ticket items or fringe subjects that are easily overlooked in the global flood of information. Some innovations will be followed through their evolution in time while others may only appear once. While subjectively selected, the briefs are descriptive in nature and leave analysis and critical interpretation to the reader. Network partners in both countries are invited to provide feedback on their interest areas and suggest particularly relevant topics for the CoronaSys Workshop series.

The CoronaSys Innovation Sheet Series is published by the [Academy of the Disaster Research Unit](#), which is, as a non-profit limited liability company, a spin-off of the [Disaster Research Unit](#) at the Free University of Berlin. The series is part of the research project "[CoronaSys](#): Addressing the corona pandemic in Armenia through systemic risk management", sponsored by the German Federal Ministry of Education and Research.

If you have any questions, suggestions, or if you wish to be taken on (or off) the project mailing list for CoronaSys updates, innovation sheets, and workshop invitations, please send a message to Janina Schäfer (schaefer@a-kfs.de). For general project inquiries, you may contact the team lead Sara Merkes (merkes@a-kfs.de) or the project lead Martin Voss (voss@a-kfs.de).

Previous CoronaSys Innovation Sheets

- 1 "New" Antiviral Face Masks
- 2 "Dyphox" Surface Coating
- 3 MOVES SLC Portable ICU
- 4 Portable TRI- KLEEN 500UV
- 5 Convalescent Plasma Therapy
- 6 ASIC-App
- 7 BinaxNOW Antigen Test
- 8 Corona Traffic Light
- 9 Aproof at Home Antibody Test
- 10 IVAT Hygiene Tower
- 11 LY-CoV555 Antibody Treatment
- 12 4C Mortality Score
- 13 Regional Corona Prediction Model
- 14 Computer-designed Mini- Proteins
- 15 Covid-19 Simulator
- 16 Trimodulin
- 17 BNT162b2-Vaccine
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All previous CoronaSys Innovation Sheets are available online:

<http://coronasys.a-kfs.de/category/innovation-stream/>

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